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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,484	12/21/2000	Rahul R. Vaid	RVZ-003.01	8996
26231	7590	04/27/2006	EXAMINER	
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			BRUCKART, BENJAMIN R	
			ART UNIT	PAPER NUMBER
			2155	

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/746,484	<b>Applicant(s)</b> VAID, RAHUL R.	
	<b>Examiner</b> Benjamin R. Bruckart	<b>Art Unit</b> 2155	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **Detailed Action**

#### **Status of Claims:**

Claims 1-29 are pending in this Office Action.

Claims 1, 18, 19 and 23 are amended.

### **Response to Arguments**

Applicant's arguments filed in the amendment filed 3/15/06, have been fully considered but they are not persuasive. The reasons are set forth below.

#### **Applicant's invention as claimed:**

#### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The amended claims limitation "terminating a communications path" is not found anywhere in the specification. The words terminating and path do not exist in the specification, nor does a written description to convey the limitation.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 18, 19 and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitations “terminating a communications path” is not found anywhere in the specification. The words terminating and path do not exist in the specification, nor does a written description to convey the limitation to one of ordinary skill in the art.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 18, 19 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. “Terminating a communications path” is not found anywhere in the specification. While Fig. 4 is referred to as providing details, the words ‘terminating’ and ‘path’ do not exist in the specification, nor does a written description to convey the limitation.

**Claims 1-9, 11-29 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,804,558 by Hallerton et al.**

Regarding claim 1, an apparatus for aggregating device communications (Haller: col. 8, lines 2-26), the apparatus comprising:

a plurality of local ports including at least one wired local port (Haller: col. 18, lines 38-52) and at least one wireless local port (Haller: col. 18, lines 52-55), at least one wired local port and at least one wireless local port being configured to establish bi-directional data communications with at least one respective local device terminating a communications path, and at least two of the local ports using different communication protocols (Haller: col. 22, lines 18-34 and line 49- col. 23, line 35);

a remote access port, the remote access port configured to establish bi-directional wireless data communications with a service provider (Haller: col. 8, lines 8-15; col. 18, lines 21-37); and

a processing system for converting data signals between a form adapted to one of the plurality of local ports and a form adapted to the remote access port (Haller: col. 8, lines 19-25; col. 12, lines 28-40; col. 15, lines 27-41).

Regarding claim 2, the apparatus of claim 1, the processing system further comprising a port processing unit that converts data signals between a form adapted to more than one of the plurality of local ports into a form adapted to a multiple access air interface of the remote access port (Haller: col. 8, lines 19-25; col. 12, lines 28-40; col. 15, lines 27-41).

Regarding claim 3, the apparatus of claim 1, the processing system further comprising a shared signal processing unit that converts data signals between a form adapted to more than one of the plurality of local ports into a form adapted to a single channel of the remote access port (Haller: col. 23, lines 47- col. 24, line 28).

Regarding claim 4, the apparatus of claim 1, wherein the apparatus is shaped and sized to be worn by a person (Haller: Fig. 1 and 2).

Regarding claim 5, the apparatus of claim 1 wherein the plurality of local ports include at least one of a Bluetooth port, a HomeRF port, an IrDA port, a wireless Ethernet port, a wired serial port, a wired parallel port, or a wireless local area network port (Haller: col. 23, lines 30-45).

Regarding claim 6, the apparatus of claim 1 wherein the remote access port includes a wireless port (Haller: col. 18, lines 38-61).

Regarding claim 7, the apparatus of claim 6 wherein the wireless port includes at least one of a CDMA port, a TDM port, a GSM port, a PCS port, or a third generation cellular telephony port (Haller: col. 8, lines 42-56).

Regarding claim 8, the apparatus of claim 1, the service provider connected in a communicating relationship with the remote access port through an air interface establishing bi-directional wireless data communications with the remote access port, and the service provider including an Internet connection, whereby a local device connected in a communicating relationship with one of the plurality of local ports may communicate through the Internet (Haller: col. 19, lines 11-16).

Regarding claim 9, the apparatus of claim 1 further comprising a local device connecting in a communicating relationship with one of the plurality of local ports, the local device including at least one of a personal digital assistant, a notebook computer, a laptop computer, a cellular phone, a palm computer, or a wearable computer (Haller: col. 8, lines 42-56).

Regarding claim 11, the apparatus of claim 1, the remote access port including a plurality of data channels, the bi-directional wireless data communications being distributed among two or more of the plurality of data channels (Haller: col. 42, lines 48-63).

Regarding claim 12, the apparatus of claim 1 wherein the body is at least one of a portable accessory, a modular add-on device, or a base station accessory (Haller: Figures 1-3).

Regarding claim 13, the apparatus of claim 1, the processing system further comprising one or more processors that convert traffic between data for more than one of the plurality of local ports and data for a logical channel of the remote access port (Haller: col. 8, lines 19-25; col. 12, lines 28-40; col. 15, lines 27-41).

Regarding claim 14, the apparatus of claim 1, the processing system further comprising one or more processors that convert traffic between data for more than one of the plurality of local ports and data for a plurality of logical channels of the remote access ports (Haller: col. 8, lines 19-25; col. 12, lines 28-40; col. 15, lines 27-41).

Regarding claim 15, the apparatus of claim 1 further comprising a services unit that provides network services to the plurality of local ports (Haller: col. 6, lines 50-62).

Regarding claim 16, the apparatus of claim 15, the network services including at least one of device connectivity, error detection and correction, load balancing, caching, traffic management, congestion control, file sharing, printer sharing, and distributed computing (Haller: col. 18, lines 16- col. 19, line 10).

Regarding claim 17, the apparatus of claim 1 wherein the plurality of local ports comprise a terminal port cluster, the terminal port cluster including a plurality of connectors, each connector adapted to removably receive a modular device port, the modular device port adapted to a single communications technique (Haller: col. 14, lines 39-54).

Regarding claim 18, a system for aggregating device communications (Haller: col. 8, lines 2-26), the apparatus comprising:

a plurality of local communications means for maintaining communications with one or more local devices (Haller: col. 23, lines 30-35), the plurality of local communications means including at least one wired local communications means (Haller: col. 18, lines 38-52) and at least one wireless local communications means (Haller: col. 18, lines 52-55) configured to

establish bi-directional data communications with the one or more local devices terminating a communications path, at least two of the local communications means using different communications protocols (Haller: col. 22, lines 18-34 and line 49- col. 23, line 35);

a remote communications means for maintaining wireless communications with a service provider (Haller: col. 8, lines 19-25); and

a converting means for converting data signals between a form adapted to the plurality of local communications means and the remote communications means (Haller: col. 19, lines 11-16).

Regarding claim 19, a method for aggregating device communications (Haller: col. 8, lines 2-26), the method comprising:

receiving local data from a plurality of local devices terminating a communications path (Haller: col. 23, lines 30-35), via at least one wired local communications port (Haller: col. 18, lines 38-52) and at least one wireless local communications port (Haller: col. 18, lines 52-55), at least two of the local communications ports using different communications protocols (Haller: col. 22, lines 18-34 and line 49- col. 23, line 35);

converting the local data into converted local data, the converted local data having a form suitable for transmission over a wireless communication link (Haller: col. 8, lines 19-25; col. 12, lines 28-40; col. 15, lines 27-41);

transmitting the converted local data over the wireless communication link (Haller: col. 18, lines 38-61);

receiving network data from a service provider over the wireless communication link (Haller: col. 19, lines 11-16);

converting the network data into converted network data, the converted network data having a form suitable for transmission to one or more of the plurality of local devices (Haller: col. 41, lines 50-67); and

transmitting the converted network data to one or more of the plurality of local devices (Haller: col. 41, lines 50-67), via at least one of the wired or wireless local communications ports (Haller: col. 18, lines 38-55).



Regarding claim 20, the method of claim 19 wherein converting the local data includes multiplexing (Haller: col. 8, lines 19-25; col. 12, lines 28-40; col. 15, lines 27-41) the local data into a plurality of data streams corresponding to more than one channel of a multiple access wireless interface (Haller: col. 42, lines 48-63).

Regarding claim 21, the method of claim 19 wherein converting the local data includes sequentially converting the local data from selected ones of the plurality of local devices (Haller: col. 12, lines 9-40; col. 29, lines 15-29).

Regarding claim 22, the method of claim 19 wherein converting the local data includes prioritizing the plurality of local devices and converting data from a selected one of the plurality of local devices according to a priority of the selected one of the plurality of local devices (Haller: col. 12, lines 9-40; col. 29, lines 15-29).

Regarding claim 23, a apparatus for aggregating device communications (Haller: col. 8, lines 2-26), the apparatus comprising:

- a plurality of local ports including at least one wired local port (Haller: col. 18, lines 38-52) and at least one wireless local port (Haller: col. 18, lines 52-55), the local ports each configured to establish bi-directional data communications with at least one respective local device terminating a communications path, and at least two of the local ports using a different communication protocols (Haller: col. 22, lines 18-34 and line 49- col. 23, line 35);

- a remote access port, the remote access port configured to establish bi-directional, wireless, data communications with a service provider (Haller: col. 8, lines 8-15; col. 18, lines 21-37);

- a processing system for converting data signals between a form adapted to one of the plurality of local ports and a form adapted to the remote access port (Haller: col. 8, lines 19-25; col. 12, lines 28-40; col. 15, lines 27-41); and

a services unit that provides network services to one or more local devices connected to the plurality of local ports (Haller: col. 6, lines 50-62).

Regarding claim 24, the apparatus of claim 1, wherein said processing system is configured to facilitate a communications path between multiple local ports (Haller: col. 18, lines 52-56; col. 19, lines 50-64).

Regarding claim 25, the apparatus of claim 1, wherein the at least two local ports further use different data rates and data formats (Haller: col. 23, lines 19-29- teaches Bluetooth and rf baseband with operating in the 2.4 GHz band; col. 26, lines 11-17, lines 31-39- teach different formats and protocols with different rates for communication; col. 27, lines 19-27).

Regarding claim 26, the apparatus of claim 19, further comprising facilitating a communications path between multiple local ports (Haller: col. 18, lines 52-56; col. 19, lines 50-64).

Regarding claim 27, the apparatus of claim 19, wherein receiving local data is performed at different data rates and different data formats (Haller: col. 23, lines 19-29- teaches Bluetooth and rf baseband with operating in the 2.4 GHz band; col. 26, lines 11-17, lines 31-39- teach different formats and protocols with different rates for communication; col. 27, lines 19-27).

Regarding claim 28, the apparatus of claim 23, wherein said processing system is configured to facilitate a communications path between multiple local ports (Haller: col. 18, lines 52-56; col. 19, lines 50-64).

Regarding claim 29, the apparatus of claim 23, wherein the at least two local ports further use different data rates and data formats (Haller: col. 23, lines 19-29- teaches Bluetooth and rf baseband with operating in the 2.4 GHz band; col. 26, lines 11-17, lines 31-39- teach different formats and protocols with different rates for communication; col. 27, lines 19-27).

**Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent No. 6,804,558 by Hallerton et al in view of U.S. Patent No 6,804,558 by Fan et al.**

Regarding claim 10, the Hallerton reference teaches the apparatus of claim 9. The Hallerton reference fails to teach a wearable glass computer or wearable audio computer.

However, the Fan reference teaches a wearable computer including at least one of a wearable eyeglass computer or a wearable audio computer (Fan: abstract; col. 3, lines 4-30) in order to provide the advantage of allowing the user to see or hear voice or video data, which Hallerton seeks (Hallerton: col. 42, lines 64-col. 43, line 10).

It would have been obvious at the time of the invention to one of ordinary skill in the art to create the apparatus for aggregating device communications as taught by Hallerton to include audio and eye glass computer as taught by Fan in order to provide to the user audio and voice data (Hallerton: col. 42, lines 64- col. 43, line 10).

### **REMARKS**

Applicant has amended the independent claims to define the wireless and wired ports establish bi-directional data communications with at least one respective local device 'terminating a communications path.'

### **The Applicant Argues:**

That the Haller reference does not teach 'terminating a communications path.'

**In response**, the examiner respectfully submits:

The examiner maintains the rejection. The Haller reference teaches both the wired and wireless ports and communications to devices such as the IMD and mobile telephone. The wired connection between the aggregate communications device is the communications module (tag 100) and the mobile telephone is depicted in Fig. 6A and in col. 18, lines 45-48.

Haller states the device can communicate between the remote system by mobile telephone or PDA and telephone/internet communications network (col. 25, lines 26-32). The wired communications path between the mobile telephone and the communications module must

be terminated because the signal must be converted to a wireless or cellular signal to be sent to the remote system. Col. 18, lines 38-52 teach the “hardwired link, cable or link between the communications module and the telephone.” Haller teaches the communication module communicates with the telephone through a hardwired link or line or connection using standardized serial communication protocols. Haller opens up the invention could use other communications protocols and serial or parallel connecting cables. Further Applicant’s own specification Fig. 1 illustrates a connection between the aggregate device and a cellular/mobile phone. Is applicant stating that the connection ends there at the wireless phone without any connection to a service provider? The examiner views the amendment as insufficient to overcome the art of record but can provide obvious combinations where a wired connection ends at a device (see prior art below).

#### **Prior Art**

U.S. Patent No. 5,876,351 by Rohde teaches terminating a wired connection between an aggregative device and a local device such as a laptop in col. 6, lines 35-51.

#### **Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin R. Bruckart whose telephone number is (571) 272-3982. The examiner can normally be reached on 9:00-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Benjamin R Bruckart  
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